AMERICAN VETERINARY REVIEW,

AUGUST, 1892.

EDITORIAL.

UNITED STATES VETERINARY MEDICAL ASSOCIATION.—Some twenty-nine years ago a few of the veterinarians and practitioners of the Eastern States came together and organized the United States Veterinary Medical Association, and since that period this organization, one of the earliest—if not in fact the first—in the country, has persevered steadily in its work, until to-day it has reached a position which entitles it to be considered one of the most efficient and useful bodies of its kind in the country, and upon which veterinarians may not only look with pride for what it has been in the past, but from which they may largely anticipate the inauguration, in the future, of measures calculated to contribute to the elevation of the profession, and its consequent usefulness and honor. Originally organized almost wholly by members residing in the Eastern States, its limited roll of membership has been enlarged, until it numbers to-day over 250, and its constitution and by-laws have been adopted and imitated as the guide of professional activity and co-operation in nearly every State in the Union. From a comparatively insignificant body, it has become a powerful institution, and the influence it wields is now recognized and felt by all well-meaning veterinarians in every portion of the land.

The success which has been achieved by the Association is due to the working-spirit of its entire membership, and the efficiency of the labor thus contributed must be largely attributed to the good judgment of the various official boards

which have succeeded each other in giving application and direction to the co-operating activities of the whole. These facts are well known by all its friends, and it is with this grand retrospect for their encouragement and inspiration that the Association is now preparing to hold its twenty-ninth annual meeting in Boston.

As we stated in our last number, and now emphasize, the business which will be introduced at the coming meeting will be of unusual interest, and besides the usual committee reports, will include the election of officers, the reading of papers, discussions, etc., and will be of special interest by reason of the arrangements which will be determined upon in relation to the meeting which is to be held the following year during the Columbian Exposition in Chicago.

One of the important subjects to be determined at the coming meeting, and which needs to be carefully considered, is the election of the board of officers, principally that of president. It has been customary for some years back to choose for that position gentlemen who were already incumbents of the place, and the usage has become so uniform that a re-election after one term was almost looked upon as a conceded prerogative, and a first election has, therefore, become, practically equivalent to a nomination for a *second term of office*. If this arrangement is still to be understood to be the regular order of the Association, the election to the presidency at the Boston meeting will, accordingly, mean the presidency at the Chicago International Meeting; and that the fact of holding so honorable a position must prove to be of great value and dignity in a professional point of view, no one will question. It is certain that if there are any ambitious aspirants to the honor, they are already busily preparing the way to a nomination, and, if we understand matters rightly, some of our best men and most energetic workers are already making interest and laying plans for securing the honor of their elevation to the presidental chair. Who would have thought of such a thing in 1863?

Well, whoever may be the successful aspirant, let the Association bear in mind that the next two meetings are likely

to bring upon that body and upon its presiding head a wide observation and a resulting repute of the utmost importance to its status and to his personal standing. The meeting in Chicago, if it can be made to partake of an international character like those which have been held in Europe, will be looked upon as the culmination of what may be considered the anniversary of the birth of an American veterinary profession, and on such an occasion it is incumbent on the United States Veterinary Medical Association to have as its recognized head a man in the presidential chair who will not only be, after the old manner, a re-elected officer, but one who can fitly fill the position of the representative leader of progress and elevation of veterinary science in America in 1893.

VETERINARY SOCIETIES AND THEIR OBLIGATIONS.—These organizations are of comparatively recent date, and, in fact, we need only to look a few years back to discover a period when, with two or three exceptions, no such bodies existed in the United States. Within a recent period, however, they have greatly multiplied in number, in fact, quite in proportion to the progress otherwise which has marked the profession. And to-day there is scarcely a State without its general society, and in several instances these are supplemented by local organizations working independently of the higher body. The creation of these bodies was welcomed by every one, and we took pains to particularly congratulate their organizers and to welcome their calls for meetings as among the most important signs of a forward movement among veterinarians.

We certainly had no reason to doubt the intentions of our colleagues, and when from the beginning we received their invitations to attend their meetings, and were handed the minutes of their proceedings, we gave them the hospitality of our pages, together with all their transactions, papers and discussions. All this time we felt that these societies were truly realizing one of their most important *obligations* toward the profession, and we prepared ourselves, as one of the organs of veterinary medicine in America, to show them that we were fully in accord with their views, and quite willing to

reciprocate as well as we were able to, whatever good offices they might render to us, and our, and their professional brethren. But the enthusiasm seems to have lacked permanence, and like a lightly laid bonfire of shavings which at first flashes with brilliant effect and promise, but soon becomes exhausted, is now, if not entirely dead, to be seen in the ashes which marks the place where it was. Only this remains, without even a spark to illuminate the spot, and only dark obscurity remains.

Why is this? The work of veterinary societies belongs properly to the veterinary profession. The papers that are read at their meetings, and the discussions which follow, ought to be diffused among the veterinary fraternity. And so long as our veterinary journals are comparatively so silent concerning our veterinary societies, the question will press itself upon the inquiring mind as to what is the trouble? Are the societies dead, or are the veterinary journals to continue to be ignored by them, and the work that is done in their meetings remained buried under the ashes of their first and deserving efforts, now wholly spent?

Certainly the few items which have appeared in some of our late journals cannot be compared with the reports which were given to the public but a short while ago in the pages of our veterinary publications. What is the cause of the change? Can the secretaries of our societies inform us?

RATS AS DISEASE CARRIERS.—During a visit received some time since from Dr. S. E. Weber, of Lancaster, Pa., he told us of the somewhat interesting work in which he had been engaged, in investigating the field of pathology of some of the rodentia—more especially that of rats—and the results which he had obtained from numerous post-mortem examinations. These had been of so satisfactory a character that he felt, in duty bound, to place himself on record as one of the first explorers in his chosen field, and with this in view he has already put some observations in print, besides reading a long paper on the subject before the Keystone Veterinary Medical Association.

The fact that, so far as we know, the rat has not hitherto

been made the subject of special investigation, is rather a peculiar one when we consider the intimate connection existing between this little animal and our ordinary human economies through the mutual surroundings of both, as occupying the same domicile, and coming in such frequent contact, both as neighbors and belligerents.

Dr. Weber has, we think, selected an interesting line of inquiry, and one which may lead to valuable discoveries in respect to the conveyance of communicable diseases, if not in other directions also.

ORIGINAL ARTICLES.

EQUINE DENTISTRY.

Paper read by E. H. Shepard, D.V.S., before the Ohio State Veterinary Medical Association, Columbus, O.

I do not propose, by presenting for your consideration this paper on the above subject, to give you anything like an exhaustive treatise on this important branch of our daily work. For, in the first place, I could not if I would, as age and experience forbid. But as there may be some here even younger than I in this class of work, their attention I especially desire. And to all, may what I have to say act as a wedge whose sharp point enters the hard knot, and opens it for the benefit of all. So may some truth, be it new or old, follow the time-crack of experience, deep into the storehouses I see before me, and beneath the blows of good intention, although hurled with a trembling arm, may they open and yield up their wealth of treasure, the choicest products of years of thought and labor, in the discussion I hope may follow.

As often as I find some new complication in my chosen work, not told to me from the lecture desk, nor laid down in any of our standard works, then I wonder have others all learned this or that fact only by experience, dearly bought at that, perhaps, and if so, how slow are we not to more often seek the advice of those who are older in experience than we;

and further, for our mutual as well as individual good, the value of these brotherly gatherings cannot be estimated, and I wish that we might meet more often than we do.

To my mind this subject of veterinary dentistry has been and is sadly neglected among the majority of veterinary graduates. The needed work, even among the patients of our best patrons, has been overlooked, till the traveling dentist with his showy kit and bag of samples has stepped in and taken more away with him than has been our portion for a long time, and leaving behind the well-founded insinuation that *we* are of no account as dentists. And if his conscience is unusually small, much work has been perhaps heedlessly done, and by his failure to accomplish the wonders he has predicted in the eyes of many, we also suffer in due proportion. Few there are in any occupation who become specialists, but the greater part of the needed work in connection with a horse's teeth does not require a specialist, still the operator should be perfectly familiar with the anatomy and requirements of each individual part which goes to make up as a whole one of the most complicated portions of the body, and the part, to say the least, upon whose completeness health, even life, depends. Even if he be not a skilled operator, his knowledge and logic should at least ensure his patient against any operation that would be detrimental to his welfare.

No rule or series of directions, however complete, can be laid down that will cover all cases, for even in the simplest work conditions are found widely differing, which require such treatment as is only applicable to the case in hand. Nevertheless, we do find under the old law of cause and effect, when existing at all, certain conditions better termed irregularities, which are universally the same. And, here as in other departments of the work, the treatment is wholly palliative. The character of the work performed by the teeth of a horse precludes any condition but that of constant change, hence the importance of extreme watchfulness over those we wish to cherish and always see at their best.

Aside from the conditions above mentioned, accidents frequently occur, which are not, as a rule, discovered till the

effect has been produced, and even then, somewhat from the inability of many to make a thorough examination, the existing conditions are overlooked or neglected until most serious results have arisen. The examination of the mouth and its contents is a matter of ease to many, but to some an almost unsurmountable obstacle; and let me here say that scarcely anything will so impress the observer with the efficiency of an operator as to see him fearlessly examine with the hand, all portions not visable to the eye, using no gag or speculum to aid him or irritate his patient.

In making an examination several preparatory observations are essential. General appearance of the animal as to make up, bodily condition, external symptoms of age, etc., with special notice as to disposition, size and shape of head, eyes, ears, external enlargements or peculiarities, etc., then a decided mentally expressed conclusion as to age, as shown by incisors corroborated by previously noticed indications, followed by a most thorough examination of the mouth and its contents, with special notice for anything abnormal or in the slightest degree peculiar. Probably the most common work in connection with the teeth is what is known as "dressing" or "floating," removing the sharp edges and corners which are usually found on the external border of the superior molars and internal border of the inferior, due to the non-wearing of these parts as the process of change steadily progresses.

To do this properly requires some amount of skill, as the edges should be dressed but little lower than the plane of the table-surface of the tooth; and as we seldom find the teeth in regular line, the work becomes the more complicated as the irregularity increases. Again, take one sharp corner or point of any shape and dress it to the plane of the tooth, and you have left, in the place of one long one, two or more sharp, ragged edges, not unlike the border of a newly-filed saw, necessitating the finishing touches of a fine instrument directed with care. And then consider that each superior molar has two external ridges, and each inferior, one to two internal ones; not a single one but may possess the above mentioned projec-

tion, and we find that the finishing touches are the most particular if not the larger part of the work.

To ensure the most confidence and quietness of the patient every precaution should be taken to prevent injury to the tongue or cheeks, by protecting the rasp as much as possible with the hand. And one thing, in this connection, which I oppose entirely, is doing any work on what may be termed the push stroke. All cutting should be done on the draw stroke; then no injury or annoyance can occur from the rasp suddenly catching on any irregularity and jumping with more or less force into the cheeks or throat, as it is likely to do in the old way.

My experience has been that the fifth and sixth molars in a middle-aged or old horse, as a rule, are in worse condition than the anterior ones, for the reason that the lateral motion of the jaws at that point is much less, consequently the projections become long and often exceedingly ragged and sharp. And it is here, where the greatest care is needed, that so many operators partially or completely fail to do the work properly. I have examined work where the rasp had failed entirely to reach beyond the fourth molar. Slight peculiarities will often be found which the file will easily temporarily rectify. If the first superior molar projects with a point anterior to the first inferior molar and needs dressing then, in nine cases out of ten, you will find a similar projection on the sixth inferior molar projecting into the mouth behind the sixth superior molar, and *vice versa* if the inferior molars should be the most anterior. These projections sometimes become so long as to necessitate the use of the cutters, but unless of unusual size, "discretion is better than valor," for the work of the rasp is the safer and more satisfactory.

Again we quite often find that, from the excessive width of the superior molars, the outside of a portion of the inferior molars, generally the three posterior, has become worn down nearly or quite to the border of the alveoli of the tooth, and the inside extends upward to the upper jaw; thus these portions of both upper and lower molars shut by, so to speak, and often are imbedded in the soft structure surrounding the

tooth—perhaps the bone itself. But if the irregularity is not so great, and decay has not set in, the molar cutters may be brought into use and the extra length removed, which will temporarily relieve the animal and retard decay. If decay is already well advanced they should be extracted as the only alternative for the preservation of the animal.

And again, from the excessive hardness of some one or two teeth without any other logical cause, they have worn away their opposites—perhaps only a little—but often have burrowed deep till decay of the latter has resulted, and we have again use for the extractor and also the cutters, with the always finishing touches of the rasp.

Among the class of colts that are handled for speed, I find that attention is often much needed. The rapid wear of the deciduous teeth, especially when the animal is being conditioned for fast work, is surprising; for instead of the soft food which nature intended, the more solid grain is required to toughen the whole system and put it in a condition to stand the continued strain of a full mile at the limit of speed. And not only do sharp points and projections rapidly appear, but they leave their mark on tongue and cheeks that must submit to the restraint of bit and rein.

The operator is sure to have his patience tried in handling this class of work—for in the first place we are dealing with an animal not fully educated—everything is new to him, and we are especially handicapped by the smallness of the mouth, and not unfrequently its cut and bruised condition has been the immediate cause for attempt at treatment. Nothing but a fine rasp should be used for this class of work, and the best operator cannot use too much care.

The veterinary should be thoroughly conversant with the period of deciduous and permanent dentition, for in the above-mentioned class of colts, whose worth oft times cannot be estimated, his service will most often be required and his judgment considered. Removing the deciduous teeth is often required to prevent abnormal conditions, and did the operator not thoroughly understand at what time the usefulness of each tooth expires he might easily make a serious mistake.

Not long since I removed what remained of a third inferior deciduous molar from a horse seven years old. The cap had become firmly wedged in between the second and fourth permanent molars, and the third permanent had forced its way up and by on the outside almost its entire width out of line. And soon after I also removed both corner and lateral deciduous incisors from a horse of nine years, the permanent teeth having grown up in the concavity of the incisor arch. Not infrequently the cause of three and four-year-olds being "off their feed," as expressed by the owner, is entirely due to the retarded shedding of the deciduous molars.

The extraction of teeth becomes necessary from a number of causes—chief among them is decay. And when thus affected, and not from any particular aggravating cause, the fourth seems to be the most susceptible, undoubtedly because of its greater age. And when I find a fourth or fifth molar thus diseased, almost invariably the opposite one in the same jaw is likewise similarly affected. From numerous accidents and special causes we are often obliged to extract a tooth from a young horse. And when we see him a few years later, and notice the opposing tooth of the one drawn, then we will realize how fast the teeth may push into the mouth and how fast the rest are wearing away. The tooth just mentioned must be kept at a length corresponding to the adjoining teeth, as any excessive length interferes with mastication, not only in passing the food backward, but by forcing portions of it into the cavity left by the extraction of the offending tooth, thus gathering fuel for greater complications. To be obliged to extract a tooth because of the excessive length of its root is not of frequent occurrence, still such cases are sometimes found. It was my privilege to treat a case of this kind which I will briefly describe. A small, grey mare, of perhaps 900 pounds weight, and five years old, was brought to me by the owner, who said that for some time he had noticed a small bunch growing on her jaw, and recently it had come to a head and discharged freely, but now persistently refused to heal. I made an examination and found a small, hard enlargement directly beneath the root of the third inferior molar, and

the probe soon found a small opening in the bone. An examination of the tooth revealed also a small opening into the mouth along the external surface of the tooth from which a discharge was also issuing. As the whole alveoli seemed to be involved, I decided to extract the tooth, which was immediately done, and the tooth found to measure within one-eighth of an inch of the combined length of the width of the jaw and the height of the adjoining tooth.

And lastly, I will call your attention to an abnormal condition not often found, but, when existing, it proves to be a veritable thorn in the flesh, a cause of much misery to the possessor, with anxious wonderings and expense to the owner, namely a seventh molar. I have here for your examination a specimen that came into my hands about one year ago; it is the bones of a head containing, in addition to the usual number of teeth, a seventh molar, with the results of its growth showing only too plainly the history of a life of misery.

The possessor of this extra molar was a beautiful mare at three and four years of age, and when with very little handling she trotted half a mile in 1 : 16, eighteen years ago, the owner thought he had one of the best and fastest the State afforded, and so offered to match her against anything of her age in the State, barring one. The following year he could not keep her in condition to do fast work, and as year after year went by she grew worse instead of better, and being disgusted he put her to breeding. But in time they noticed she did not feed even as well as usual, and at times would quid out some of her hay, so her teeth were dressed by home talent. Still she did no better, and at last, in her nineteenth year, a self-styled practical dentist was called in and he extracted a portion of a decaying tooth—only a portion, for the balance still remains—and then dressed her teeth as he considered they should be. At last, during her twentieth year, she received a kick, breaking her thigh, and was then destroyed. After death the condition of her teeth was noticed and a friend called my attention to it.

Now, as you see, the extra molar is a left inferior seventh,

a portion of the sixth having been broken off by the dentist before mentioned. The rest of the teeth are in fair shape for an aged animal. But the inferior right molars are much lower than the left, because of the extra work she put upon them, one having become much decayed. As this seventh molar grew and pushed into the mouth it passed upward, striking first the posterior part of the superior sixth, and wearing it away, passed on into the bone. In its upward course it passed through the alveolar tuberosity of the superior maxilla, making an opening into the maxillary sinus, also one through the palatine process of the sup. maxilla into the nasal cavity and destroying the palatine foramen. The inflammation extended to all parts adjacent, even so far as to destroy the integrity of the orbital surface of the molar bone.

The suffering this poor brute passed through is beyond comprehension, and I now hope that her *known* fate will be the means of saving from a similar one any that may chance to come under the care of those to whom this knowledge appeals.

I might go on and mention other irregularities which in each case become special and require treatment applicable to the case, but I have already occupied too much of the valuable time of this meeting. But in conclusion, let me say, this is a branch of our work which we cannot afford to neglect in the least, as it is fast growing into favor with-horse owners in general; and if we would keep up with the times, our work must compare favorably with that of the traveling gentry who would rob us of our legitimate work.

MODE OF DISPOSING OF OUR DEAD.

Paper read before the Ohio State Veterinary Medical Association.

By W. H. Gribble, D.V.S.

When requested by our President to prepare an essay for our annual meeting, I was at a loss to know what to write about,so finally decided to depart from the custom of symptoms, cure, etc., and speak on a subject which we, in conjunction

with the medical profession and the whole world at large, are interested in, especially from a sanitary point of view, where prevention becomes more essential than cure; in fact I know of no subject of greater importance, and it is somewhat surprising to see what little attention is given it by our sanitarians, how little it is understood by the public, and by no one thing is the health of the people placed in so much jeapordy as where beneficial hygienic reform is of so much importance; I mean, "In the disposal of the dead," viewed by the light of modern science.

The question of what shall we do with our dead, is one that concerns only the living, and has for many, many years been the subject of attention by leading sanitarians. As far back as 1539 we can find literature bearing on this important subject, and at the present time several writers are giving the facts in reference to the dangers of our present mode of burial.

There are three methods spoken of for the disposal of dead: First, mausoleum; second, earth-burial; third, cremation. The first is that method recently advocated in New York, and which consists of an enormous building, divided and subdivided into compartments or vaults, wherein the dead are to be hermetically sealed. The objections can be raised to this, that in time the building would crumble and decay; and the whole scheme is not feasible, when we consider the number of dead in any given number of years.

Second, earth-burial. Within the last twenty years, scientific men, with hardly an exception, have universally condemned this method; its dangers have been recognized for three hundred years, for as far back as that, efforts were made to compel all cemeteries to be established outside of city limits. In the light of modern science, how can intelligent men believe in earth burial, for the pleasing illusion of pleasant sleep in the grave has been thrust aside and in its stead we are shown, that from the moment life leaves the body, be it man or animal, putrefaction begins its slow and loathsome process, passing through the different phases of putrid decomposition, too horrible to behold or describe. This decomposition is simply oxidization, and may vary ten, twenty, one

hundred or one thousand years, according to circumstances; it is simply the process of burning, a process which, during life, supports it, and which after death continues, until no part of the material composing that life remains. Mausoleum, metalic coffins, hermetically sealed cases, only retard the work; but, sooner or later, cases and bodies alike must yield to the life-supporting oxygen. Sir Henry Thompson says no dead body is ever placed in the earth without polluting it; so that after burial the bodies of those dying of contagious or infectious diseases are still a source of danger. The plague of Modena, in 1828, was shown by Prof. Bianci to be due to excavations made among the burial-places of those dying of plague three hundred years before. In 1843, a small town in England was almost depopulated by disease caused by using the rich soil of an old cemetery to enrich their gardens. The cholera of London, England, of 1854, is believed by men of science to have been caused by upturning the soil where were buried the plague-stricken of 1665, nearly two hundred years previous. In 1853, during the epidemic of yellow fever in New Orleans, the mortality of one certain district reached the enormous per cent. of nine-twentieths, nearly one half the population of that district, being double the death-rate of any other part of the city, and in this district were three large cemeteries, in which, the year previous, more than three thousand bodies had been laid to rest. Dr. Freire gathered dirt a foot under the surface over the remains of a person dying of yellow fever a year or more previous, and found, under the microscope, that this dirt was full of yellow fever germs. Dr. Koch, of Germany, and Dr. Carpenter, of England, state that the blood of animals dying from splenic fever may be dried, pulverized and kept for years, and still the disease germs survive, with power to produce that dreaded disease. Darwin, as early as 1837, showed the agency of earth worms in raising from below to the surface, and Prof. Pasteur's experiments have proven that earth worms bring to the surface myriads of bacteria from decomposing dead, that positively contain the specific germs that propagate disease. Some sheep dying of anthrax were buried very deep in the field

where they died, and for ten or twelve years this pasture was not used; but when it was, sheep began to die of anthrax, although none existed in the neighborhood. Pasteur demonstrated that the disease had been brought to the surface by earth worms, from the remains of the previous cases. Many cases are recorded where sickness and death resulted from the use of water near cemeteries; and almost any physician can testify that in case of an outbreak of disease, it is invariably the worst near a grave yard. Within a radius of ten miles of the City Hall of New York, dwell about three million people, with an annual death-rate of sixty thousand, which, if we allow for quick computation one hundred pounds to the body, gives them the enormous quantity of three thousand tons annually of decomposing material to be disposed of, and Dr. Parker says that every putrefying human body will give off annually about fifty feet of carbonic acid gas: so you can imagine the purity of the air in and about the neighborhood of thickly populated cemeteries, without considering the pollution of the earth and water, and the danger existing from contagious or infectious diseases.

Philadelphia has eighty thousand graves so located that they drain into the city's water supply, and Philadelphia is not the only city with the same trouble.

These things do not form a pleasant subject to contemplate, but they still remain facts.

Dr. J. D. Beagless says that in Calvary cemetery of New York, in the public part, a trench is dug, seven feet wide, ten or twelve feet deep, and of indefinite length, in which the coffins are stowed away tier upon tier, making a flight of steps five or more deep, and with not sufficient earth to hide one layer from the next. Dr. Felix Formeto states that in New Orleans, where subsoil water is often found a few inches from the surface, and the soil of such a nature as to absorb and retain all sorts of poisonous matter, that they have there adopted a method of burial, which is carried out with very few exceptions, described as follows: Instead of the corpse being deposited in the ground it is placed in tombs or oven-like places above ground, generally badly constructed

and exposed to the aternating influences of excessive moisture and a burning sun. No disinfectant is used either in the coffin or in the vault, and, to make matters worse, most of the cemeteries are overfilled and located in the heart of the city. What a picture for the contemplation of sanitarians ; and these methods are those of vaunted Christian burial. Christian, indeed; why Christian? religion has no more to do with the disposal of the dead than it has with sewerage or any other sanitary measure. Earth-burial seems to have become the custom about the fourth century, and whether adopted by the so-called Christians to distinguish their religious sect, or because the body of Christ was not cremated, is to us in the light of the nineteenth century of little importance ; it is a question that concerns only the living, and shall we, as reasonable beings, continue to follow a custom blindly, hoping that we shall not be harmed? or shall we so dispose of our dead friends? leaving the living none the worse for their having died.

Dust to dust, ashes to ashes, is the requiem to us all. We must undergo oxydation—we have no choice in the matter; but we may choose whether we prefer the slow, loathesome, offensive process as carried for fifty to a hundred years after the mode of earth-burial, or the quick, clean and beautiful method of incineration—being reduced to ashes in an hour in the rosy glow of a crematorium.

Third—Cremation.—Cremation is simply a clean process of accomplishing in an hour what requires years and years by earth-burial, without the gloom and offensiveness of the grave, or its dangerous accompaniments. It is simply nature's method of oxydation hastened and purified ; yet it is strange how little it is understood, some even speaking of it as the new-fangled method, while many suppose the body to be actually burned in a fire. In reference to the antiquity of cremation or earth-burial, early Greek literature gives neither the preference ; both are spoken of, cremation seeming to be reserved for the noted.

In the story of the Trojan wars, we are told that the great chiefs were incinerated so that their ashes could be returned

to their native land. Jewish history, in 1st Samuel, chap. xxvi., verses 12 and 13; Amos, chap. vi., verse 10; Jer., chap. xxxiv., verse 5, tells us of cremation. In 1812, during the retreat of the French from Moscow, thousands of French soldiers who died were burned by the Russians. In 1814 more than four thousand soldiers who had died in the battles around Paris were incinerated. In 1870, after the battle of Sedan, the same was done; all in the interest of sanitary science, to destroy powerful causes of disease and promote public health. Nearly all scientific men speak in favor of cremation, and we believe when properly understood, sooner or later, it will become general.

In our own country there is Dr. Beagless, who never fails to advocate as a veterinarian what he knows will promote health; and Dr. J. F. Lemoyne, who, besides using tongue and pen in its favor, built at his own expense a crematorium in which his remains were cremated. Prof. Samuel Gross said: "If people could see the human body after the process of decomposition sets in, which is as soon as the vital spark ceases to exist, they would not want to be buried; they would be in favor of cremation. Burying the human body, I think, is a horrible thing. Why, if people knew what physicians know, what they have learned in the dissecting-room, they would look upon burning the body as a beautiful art in comparison with burying it. When I die I want my body to be cremated."

Objections of a religious nature have been raised against this method, but they are frail and fast fading away, and some of its most zealous advocates are Christian ministers; and in Italy, where the Roman Catholic Church formerly exercised an intense opposition, this opposition has apparently ceased, and in Rome itself a crematorium is in actual use; in fact Italy as a nation is in the advance in favor of this method. Paris is not far behind, and is at present prepared to incinerate at least five thousand bodies annually; and Brazil since 1887, cremates by State order all bodies of yellow fever victims. In the United States several crematories have been established, but our people as a whole are slow to accept what they so little understand, and exercise little interest in

educating themselves on the subject; could they be persuaded to witness the process, its adoption would be assured, for (like myself) almost every person would be a convert to cremation. An argument in its favor is that body-snatching would be suppressed, examples of which the daily papers keep us well informed. A medico-legal argument is urged against it; that it would destroy all evidences of poisoning. To a slight extent this is true, not against the method, but shows that in all cases a careful autopsy should be had; but where non-volatile minerals were used these would be as readily detected in the ashes as in the body.

It may seem to some that the term 'economy' in reference to disposing of our dead friends is cruel; but there is hardly one of us who has not noticed the extravagance of a fashionable funeral followed by want of food and shelter due to the expense entailed. Dr. Beagless says the cost of funerals exceeds the annual product of all our gold and silver mines combined, and equals the amount of all the business failures of our country; while the total cost of cremating a body at Milan is $1.60.

Again, the value of land occupied. In the United States, with a population of over sixty millions, and an annual death roll of over nine hundred thousand, have you ever calculated how much space they occupy? Allowing six feet by two feet per corpse, an acre buries 3,360, so it requires 250 acres of land to annually lay away our dead. Actually it requires four times this amount for paths, roads, monuments, and other accompaniments to a cemetery, so wasting a thousand acres of valuable land yearly. Cremation, as before said, does not consist of actually burning the body in a fire. We have witnessed the *modus operandi* twice, and each time became more zealous in its favor. Scientific apparatus has been devised which makes the method safe, speedy and inoffensive, no flame or fuel comes in contact with the body; there is no perceptible sound, smell or smoke; nothing that the most fastidious could take exception too. All volatile substances pass through a furnace, and are absolutely pure before reaching the atmosphere, and the process, when compared with earth-

burial, is simply beautiful. The method as conducted at Cincinnati does not materially differ from any other crematory. A large room or chapel is fitted up, underneath which is the incinerator proper. The body is borne into this chapel and placed on a raised dais, which is the upper part of an elevator in front of an altar. If the friends so desire, a funeral service is held, and as it proceeds the raised dais with the body silently descends into the basement, where the body is stripped of its clothing, wrapped in linen, which has previously been soaked in a saturating solution of alum, then placed in a metal plate in front of the door of the incinerator. The incinerator, which has been heated to a white heat within, by means of superheated air, at a temperature of 1,500° or 2,000° F., is in readiness, and as the door is opened, the cold air rushing in cools it to a beautiful light red tint. The body, resting on its metal plate, passes over rollers into this beautiful rosy bath and immediately becomes incandescent, remaining so until incineration is complete, which for an average body requires about an hour. The ashes remaining, which are about four or five per cent. of the weight of the original body, are dropped into an ash chamber below, and from thence placed in any suitable receptacle. The funeral service being over, the friends find the ashes on the raised dais where they last saw the body, and can do with them as they see fit. Throw them to the four winds of heaven, as was done from the Goddess of Liberty; sprinkle them on the broad waters of a river, as was done at Cincinnati; preserve them in an urn used for that purpose, or bury them in a family vault, well knowing that fire, that greatest of purifiers, had removed all danger to the health of the living from the body of our departed dead.

Fellow veterinarians, these remarks should have for us as sanitarians an especial significance, for well we know the indifference shown in the disposal of the remains of our dead patients. Glanders, farcy, anthrax, etc., are often left on the surface of the ground, and if buried at all it is exceedingly shallow; and rarely, if ever, is care taken, even in the matter of disinfection, becoming not only, as shown by Pasteur, a foci of contagion to the animal kingdom, but a daily menace to the health and well being of the human family.

ACUTE METRITIS.

By J. E. Brown, V S., Oskaloosa, Iowa.

This is the time of year when the attention of the country practitioner, here in this great horse-breeding State of Iowa, is constantly being called to the above disease, and, from the many disastrous results of it, it is well that we give the subject some special thought.

Farmers and stockmen are making a very great error in breeding their mares too early; colts are foaled in April, March, and even February. The weather is cold and wet, and comparatively few of our farmers and stockmen are sufficiently provided with suitable stabling. The result is, the mares are exposed to the disagreeable weather, chill, congestions and inflammations of the lining membranes follow; even if the delivery has taken place without undue labor and exertion, metritis, peritonitis or metro-peritonitis is established and the lives of many valuable brood-mares sacrificed.

One of the peculiarities of the disease, to me, has been its special fatalities during certain years, while similar cases other years, seemingly just as violent, and with the same general surroundings and treatment, were attended with a large percentage of recoveries. One year especially I remember of seeing a great many such cases, many of which seemed beyond any possible chance of recovery, and yet in nearly every case the treatment yielded satisfactory results. I have been unable to detect any reason for this difference, and frequently wonder if other practitioners had had the same experience.

The disease is usually ushered in with a chill, and fever following, and as we commonly see it has been in progress some little time; as the urgent symptoms come on, ordinarily somewhat slowly, there is loss of appetite, suppression of milk, restlessness, slight abdominal pain, looking back at the flanks, breathing is quickened, pulse 70 to 90 and weak, temperature 103° to 106° or even higher, occasional straining, at which times will be ejected per vagina a reddish-brown or chocolate-colored fluid, very fœtid, and thickened shreds of

lymph and decaying animal tissue. On introducing the hand into the uterus the operator's attention is specially drawn to two conditions, the excessive heat, and the expansion of the walls, leaving a vast cavity, which from its acridity causes much irritation. The inflammation rapidly spreads, involving the peritoneum, intestines and other organs. The blood becoming altered from absorption, swellings, ulcers and bed-sores rapidly follow. The bowels are inactive, except in the last stages, where enteritis becomes established, and fœtid diarrhœa may occur. The belly becomes tympanitic, and there is paddling of the hind feet and staggering gait when moved. The visible mucous membranes are of a dark red or purple hue, and show petichial spots and purple streaks. Acute laminitis is also a frequent accompaniment. Comparatively few of the fatal cases that I have seen have died suddenly, but, on the contrary, have lingered along from seven to fifteen days, and then died unexpectedly when seemingly convalescing.

I append the history of a few cases which are fair samples of my experience. On May 28th, 1891, I saw an eight year-old grade draft mare from which a dead foal had been taken two days previous, by inexperienced operators, and with considerable unnecessary irritation. The pulse was running about 80, and temperature 105°, respirations short and hurried. The discharges per vagina were so profuse and so fœtid that one could scarcely stand it or remain long at a time in the stable. The mare stood up, *bench legged*, and when moved almost fell down, other symptoms in common with the disease. I began with a few good doses of f. ex. ergot, and small but frequently repeated doses of aconite. By this means I reduced the temperature and equalized the circulation somewhat, and caused a contraction of the walls of the uterus and an expulsion of the acid, fœtid fluid. I also used frequent small doses of hyposulphite of sodii (and I would recommend a more extensive use of this agent in such cases to my brother practitioner, for to me it has proven itself of great value), and small draughts of whiskey. Large doses of stimulants, especially in the early

stages, I am sure are harmful. Every three hours I ordered a uterine injection of one pint each of warm water and milk, and thirty minims of carbolic acid. This would remain but a short time when it would be thrown off, and with it great quanties of the fœtid secretions. With this treatment, after a few days the general conditions improved, appetite gradually returned and the case made a nice recovery. Some uterine discharges remained for a time, and an injection containing Lloyd's hydrastis was used, and finally a complete recovery was the result. Six months later the mare was brought to my hospital and reported as showing symptoms of uterine trouble, but on examination I found a cystic calculus as large as a hen egg, and since its removal I have heard of no trouble.

Another case, in a standard breed three-year-old filly had her foal naturally, but a small portion of the placental membrane remained in the womb. The symptoms and treatment used were similar to the other, except that the bowels were constipated and gave much uneasiness; this was overcome by the use of raw oil, and the colicy pains controlled by the following:

℞ Tr. opii., ʒ ii,
Bis. Sub. Nit., ʒ iv,
Acid Carbol. Minims, ix,
Aqua ad. q.s., ʒ viii,
M. Sig.; 4 doses.

Mix each dose in one-half pint of water and give as a drench every three or four hours.

I find that many cases suffer much from indigestion and colicy pains, and the above prescription acts very nicely. This case made a nice recovery.

Occasionally the veterinarian bumps up against something that was "*loaded*," and such was my experience with a case of

DIFFICULT PARTURITION, INVERSION OF UTERUS, METRITIS, LAMINITIS AND SEPTIC POISONING.

On my first visit I found a three-year-old grade draft mare that had been in labor about six hours; on examination

I found an anterior presentation, with fœtus lying on right side, and neck flecked back over the shoulders, the head resting in the left flank of the mother and under the body of the foal; I could just reach the occipit with the tips of my fingers. The walls of the uterus were so forcibly and continuously contracted that any kind of manipulation seemed impossible. After disarticulating the anterior extremities at the carpus and attaching ropes to the stubs, I replaced them anterior to the pelvic arch, and gained a little more room, then with small forceps, made on the principle of common ice tongs, (and which, by the way, are about the most serviceable little contrivances in this class of our surgery that I have ever used), placed on the neck, with ropes attached and drawn upon by my assistants, I finally succeeded in getting a normal presentation. The foal, however, was so large that very severe traction was required to deliver it, and considerable irritation to the parts had been unavoidable. When we finally succeeded in delivering the foal it was immediately followed by inversion of the womb (caused by the firm placental attachment), but returned it with little trouble and removed the placenta.

The treatment following was similar to that prescribed for the other cases. The next day our patient looked bright, had some appetite, and from general appearances was doing well, except an elevated temperature. On the second day laminitis had made its appearance in a most severe form and she could not be induced to move. Temperature was 104°, pulse, 84°, respiration hurried, and an anxious expression of face and eye.

On the third day an exhaustive discharge was being thrown off per vagina, tense, fevered swellings made their appearance about the shoulders and extended down to the carpus, also around the stifles. These swellings were very painful, and she kept frequently putting her nose around and licking the swollen parts wherever they were in her reach.

The feet had been well poulticed all the time since laminitis made its appearance. At this stage I began whiskey and cinchonidia. The injections were used every two hours, as the

discharge was profuse and highly offensive. For about three days very little change could be noticed, then abscesses formed in the swollen parts, and on opening discharged considerable quantities of bloody serum.

The swellings gradually disappeared and gradual convalescence followed. Tonics were cautiously administered, hydrastis added to the injecta. On the fourteenth day she was looking well, had a good appetite, and everything looked favorable to recovery up to midnight, when the attendant left her and went to bed, but on returning to the stall at six o'clock on the morning of the fifteenth day found her dead.

In summing up the treatment from which I have obtained the most satisfactory results is f. ex. ergot a few doses at first, and it is sometimes necessary to fall back to it again for a few doses as the uterine walls may become again relaxed. Small doses of aconite frequently repeated during the high temperature, and the hyposulphite of sodii.

Stimulants and tonics must only be administered very cautiously, in accordance with the symptoms presented. The injecta of water, milk and carbolic acid may be used every two or three hours, when there is much discharge, and hydrastis added in later stages.

LICE AFFECTING DOMESTIC ANIMALS.

By Herbert Osborn.

(*Continued from page* 211).

Biting Lice of Cattle. (Plate II., Fig. 8).

Trichodectes scalaris, Nitzsch.

This species, which is a very abundant one upon cattle and occurs the world over, appears to have been first technically described by Linnæus (System Naturæ, vii., p. 1017, No. 9), under the name of *Pediculus bovis*, and evidently the same species is referred to under the name of *Pediculus tauri* (*Fauna Suecica*, 1946). Nothwithstanding these descriptions, both of which were under a different genus from that in

which it is now placed, the species was again described by Nitzsch (Germar's Magazine, 3, 296) under the name of *Trichodectes scalaris*, and it has been known by this name in all of the numerous writings subsequent to this description. It has been treated by all writers upon the parasites of animals and is one of the best known species of parasitic insects. The effects upon the cattle infested are often quite serious on account of their great number, but they are apparently less injurious than the suctorial species which infest cattle. This injury depends, of course, upon the numbers occurring upon the individual, and somewhat upon the irritability of the animal infested. This species much resembles the form occurring upon horses, but is somewhat shorter and the abdomen tapers less towards the extremity; the dark bands across the abdomen are also more distinct. They are generally found in greatest abundance in the spring of the year, at which time adults and eggs are discovered in great numbers. Their development corresponds with the other species, and they are subject to the same methods of attack.

They are very distinct from the suctorial species in appearance, and this difference is recognized by practical men, who speak of them as the "little red lice," as contrasted with the "blue lice," and they recognize, too, the difference in the trouble caused by the two species.

The application of kerosene emulsion or of tobacco decoction at seasons when this is practicable is effective, and we have found the process of fumigation described under sucking ox-louse to be effective, and this, of course, is applicable at all seasons of the year, even in cold weather, without danger to the animal.

The Louse of the Sheep. (Plate II., Fig. 9).

Trichodectes spærocephalus, Nitzsch.

Redi is credited with the recognition of this species, and following him Linnæus described it under the name of *Pediculus ovis*, and later still it was described in detail under the name given above. Denny's reference to it would indicate it as rare in England, and we have not met it here, though we

have received specimens from Canada. If it is of rare occurrence it may be considered as fortunate, for, if abundant, it would be rather difficult to contend with on account of the long wool of the host.

The name indicates its characteristic feature, namely, the rounded head. The color agrees closely with the related species.

Where it occurs it would be the best plan to pay close attention to destroying them at the time of clipping the sheep, even if they are but few in number, as at any other time the labor of making thorough applications for them is greatly increased.

The Biting Louse of the Dog. (Plate II, Fig. 11).

Trichodectes latus, Nitzsch.

Something over a century ago DeGeer mentioned a species of parasite on the dog under the name of *Ricinus canis*, which probably referred to this species, and another mention by Olfers under the name of *Pediculus setosus* probably preceded the description by Nitzsch under the name which the insect has borne since 1818.

Probably everyone who has had much to do with dogs is aware to what an extent this parasite may multiply and how troublesome it is to this friend of man. It is generally believed that the lice are more troublesome to puppies than to old dogs, and it is not at all unlikely that the insects migrate when possible from older to younger animals.

In color this species agrees pretty closely with the other species and it is of about the same length as the cat louse, a little more than one millimetre, but it is much broader in proportion, being more than half as wide as long, and the head is short and the front but slightly curved.

The Louse of the Cat. (Plate II, Fig. 10).

Trichodectes subrostratus, Nitzsch.

While it is possible that this parasite was referred to by Otto Fabricius about the year 1780 under the name of *Pedi-*

culus canis, the first certain reference to it appears to have been the description by Nitzsch, in 1818. Since that time it has been referred to by nearly all writers on the common parasites of animals, but so far as we know there has been no special description of the different stages, and we must assume that there is no important departure from the habits of species that are more thoroughly known.

It is a little more than a millimetre in length and has much the appearance of the species occurring on other domestic animals, but it is distinguished particularly by the form of the head, which is quite pointed, and the under part of the front of the head is hollowed out in a furrow about the size of a hair. This insect will often be found adhering by the mouth parts with a hair so closely held in this grove that it is somewhat difficult to tell where the hair begins as separate from the insect.

There is no record that we have seen which indicates its presence on any animal other than the domestic cat, and, judging by our own observation, it is only occasionally that cats become infested with it. When they do, the usual remedies may be administered, especially a washing with kerosene emulsion, after which the animal should be allowed to dry in a warm place, as the fur is so fine that they dry slowly.

Chicken Lice.

There are no less than six different kinds of lice that occur normally on the common barn-yard fowl, and at least one other species occurring on other birds that has been recorded as taken on this much parasitized species.

One of these, the *Gonicotes abdominalis*, shown in Fig. 7, Plate II, is said to be very common, but in this locality it has not been found so abundant as the following:

It is a large, conspicuous species, about 3 millimetres in length, quite broad, the head nearly circular in front and constricted behind, the thorax small, the abdomen widening to near the end and terminating abruptly. The head, thorax, and legs are yellowish, with dark margins and spots; the ab-

dominal segments bear lateral whitish fasciæ bordered with black.

The species which seems most abundant of all is the

Menopon pallidum (Fig. 13, Plate II).

The annoyance that this species causes poultry is probably equal to that of all the other species combined, for it occurs in great abundance and almost every fowl examined will be found infested. Then, too, it passes readily to other species of birds, and many instances are recorded where horses kept near hen roosts have been very seriously troubled by them. Some of these accounts seem hardly credible, taken in connection with the habits of the insect, and we are inclined to think that the worst cases, at least, may have been due to itch mites on the poultry and the migration of them to the horses, though in such case we should expect the fowls themselves to show more serious injury. It is, at any rate, important to keep lousy chickens away from horses.

The louse is pretty easily distinguished from other common species infesting the hen by its light color and its great activity, running with celerity among the feathers and from them upon the hands of persons holding fowls. It is from 1 to 1½ millimeters in length, rather slender, and of a light straw-yellow color

Remedies for this species must aim to reach the hiding places of the lice on the roosts and in the cracks of the walls of the hen house as well as to destroy those on the fowl. Thorough fumigation and whitewashing, with careful attention to cleanliness, will do much to keep them in check. Pyrethrum, kerosene, etc., may be used direct upon the fowls, and if they are liberally supplied with wood ashes and road dust they will do much to protect themselves.

Duck Lice.

Trinoton luridum, Nitzsch. (Plate II, Fig. 14).

Redi seems to have been the first to give mention of this very common species, it being figured in the Experi. Pl. XII, as the louse of the teal. It is also figured by Albin (Pl. 46) under the same common name as quoted by Denny. Nitzsch described it in 1818 under the name given above, and the

species has been fortunate enough not to have received any other designation since, although it has been mentioned in most of the works referring to the parasites on domestic fowls or the parasites of birds. It is a very common species and occurs on a great many different species of ducks, so it is unnecessary to try to enumerate the hosts. So far as we have seen or can learn from record, however, it is not known to occur on birds outside of the duck family (*Anatidæ*).

Aside from these species mentioned there are many others affecting domestic fowls; pigeons, turkeys, geese and guinea hens, all supporting a numerous host of these parasites.

We have not space here to give further details regarding them, but it may be mentioned that remedies suggested for the chicken louse apply as a rule to the other kinds and for further details the reader may be referred to BULLETIN No. 7, Division of Entomology, U. S. Dept. Agriculture.

EXPLANATION OF PLATES.

PLATE I.

Fig. 1.—*Hæmatopinus eurysternus; a*, female; *b*, rostrum; *c*, ventral surface, last segments of male; *d*, female; *e*, egg; *f*, surface of egg greatly enlarged. (Original.)

Fig. 2.—*Hæmatopinus piliferus.* (Original.)

Fig. 3.—*Hæmatopinus vituli*, and under surface last segments of female showing brush-like organs. (Original.)

Fig. 4.—*Hæmatopinus asini* (From Comstock.)

Fig. 5.—*Hæmatopinus urius; a*, female; *b*, male, ventral view of posterior segments; *c*, leg, showing protractile disk of tibia. (Original.)

PLATE II.

Fig. 6.—*Trichodectes parumpilosus.* (Original.)*

Fig. 7.—*Trichodectes pilosus.* (After Piaget.)

Fig. 8.—*Trichodectes scalaris.* (Original.)*

Fig. 9.—*Trichodectes sphærocephalus.* (After Denny.)

Fig. 10.—*Trichodectes subrostratus.* (Original.)

Fig. 11.—*Trichodectes latus.* (After Denny.)

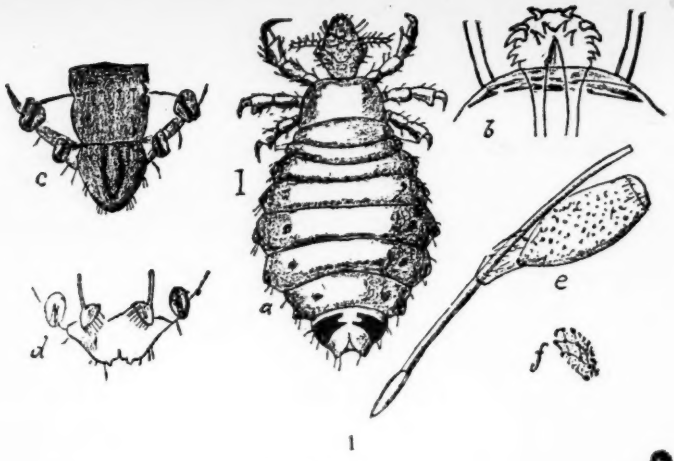
Fig. 12.—*Goniocotes abdominalis; hologaster* of Denny. (After Denny.)

Fig. 13.—*Menopon pallidum.* (After Denny.)

Fig. 14.—*Trinoton luridum.* (Original.)

All the figures are reproduced from Bulletin 7, Div. Ent. U. S. Dept. Agriculture, and unless otherwise credited, were drawn expressly for that Bulletin by the author or finished from his sketches by Miss Lillie Sullivan under the supervision of Dr. Riley.

* The hair line in the figure is about one-fifth longer than it should be.



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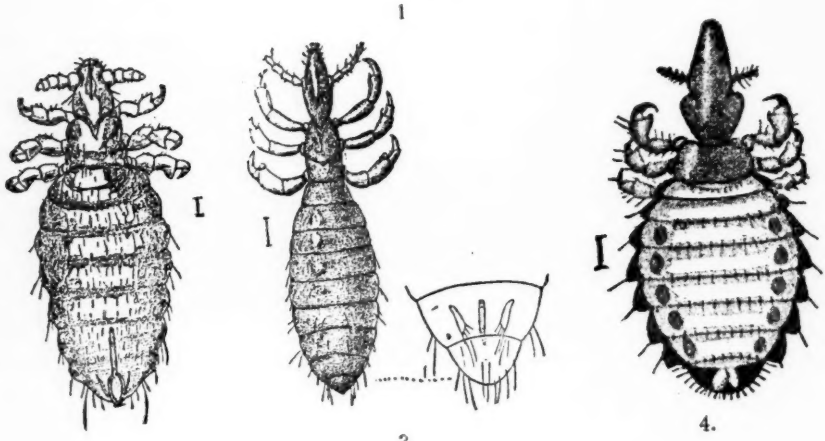

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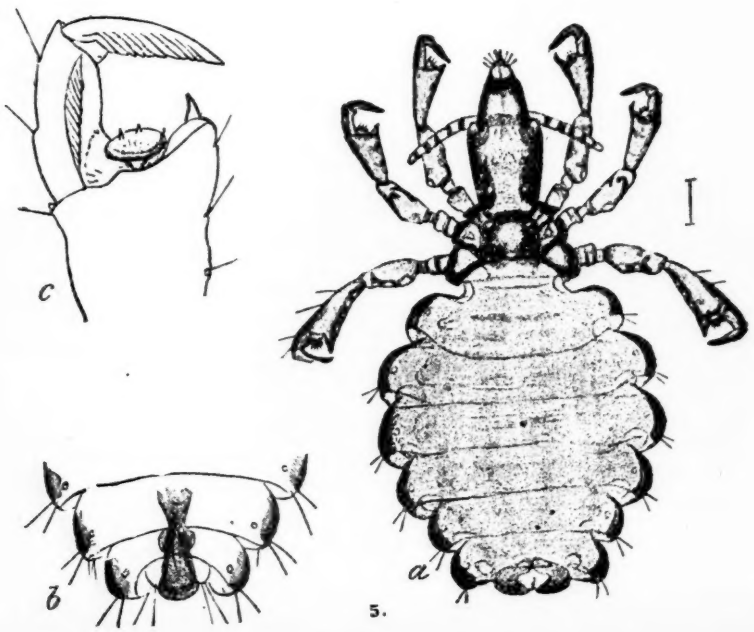

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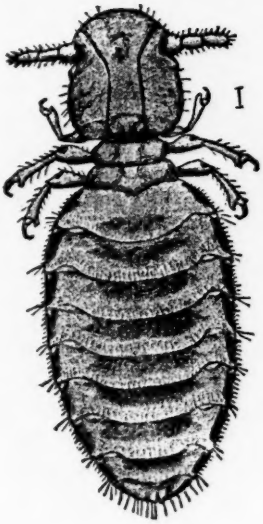

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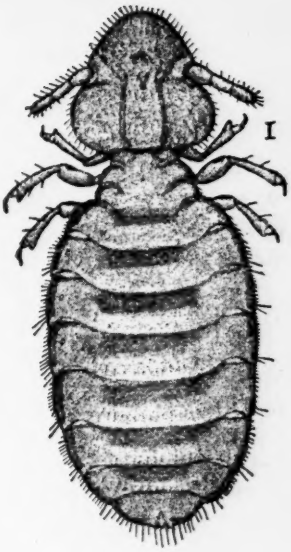

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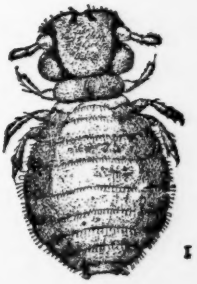

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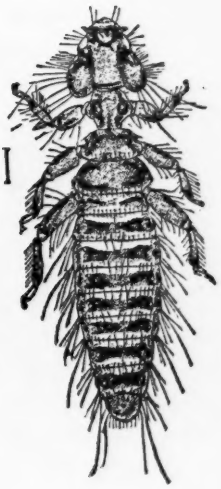

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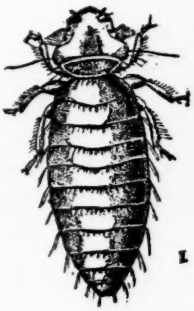

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PLATE II.

REPORTS OF CASES.

"Careful observation makes a skillful practitioner, but his skill dies with him. By recording his observations he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of pathological science."—VETERINARY RECORD.

One of our correspondents writes:

"I send you another small contribution, which you can make use of in the AMERICAN VETERINARY REVIEW. *I think reports of cases are really of more practical value to the ordinary practitioners than more scientific articles*, and I also think that if more records were kept of cases successfully treated, and published to the profession through the medium of our professional journals, not only the profession, but the stock-owning public would be benefitted to a much larger extent than they now are. . . . "

[If more of the two thousand veterinarians that are now practicing in the United States would act upon the foregoing suggestion, what an amount of valuable and interesting information could be obtained.—ED.]

RUPTURED STOMACH.

M. E. JOHNSON, V.S., Red Oak, Iowa

Was called to sorrel horse weighing about ten hundred pounds; was nine years old, a good livery horse; had been driven moderately all day; came in at 8 P. M. and was taken with severe pains, and wanted to lie down while being unhitched; a flatulent condition of stomach and bowels was present; gas and feces passed per rectum, frequently with violent straining; regurgitation of gas from stomach was almost constant; animal would fall on the ground with great force. The distension of the bowels from gas seemed to exist to its utmost capacity.

Later on vomiting commenced, ingesta emitted through the nostrils, hemorrhage followed. At this stage I unhesitatingly diagnosed a ruptured stomach.

A general relaxation took place. Incontinence of urine. Animal went down and death immediately followed. The greatest suffering existed throughout his sickness.

Treatment.—Ether sulphuric, tr. of ginger, hyposulphite of soda were given as a drench. Injections of warm water and oil were given per rectum, but no encouragement followed.

Post mortem.—The stomach contained ingesta of cracked corn and hay, a part of which had been emptied into the abdominal cavity through an artificial opening.

There was a brownish discoloration of the internal or epithelial surface of the left cul-de-sac, with normal patches of tissue intermingled. A portion of this discoloration was made up of cicatricial tissue, presenting a polished surface. In this portion of the stomach was an opening about the size and apparently as round as a quarter of a dollar.

An examination showed that an ulcerative process had existed for some time, and that all of the layers had been eaten through but the serous, which was ruptured at the time of the distension of this organ by gas.

There were a number of ulcerations, varying from the size of a fine shot, to the largest size buckshot, but none had eaten so deeply as the first mentioned.

There was a rupture in the inferior portion of the right cul-de-sac in the direction of its long diameter, about five inches from the pyloric orifice, of ten inches in extent; an ulcerative process had destroyed much of the tissue along this line.

Blood was found in the small intestines, and a large quantity with water in the abdominal cavity.

The left lobe of the liver was in a putrid condition.

IMPETIGO SPARSA DIGITORUM.

DR. J. DALRYMPLE, V.S., Baton Rouge, La.

Amongst the various diseases affecting the tegumental system of the horse, few are so intractable, or cause so much dissatisfaction and worry to the veterinary practitioner as a genuine case of *Grease*.

The following is a short record of a case which came under our observation a short time ago, and as it has just recurred to our mind incidentally, we take pleasure in for-

warding it, with the hope that it may interest and mayhap benefit some brother practitioner who has an obstinate case under treatment, should you consider it worthy of insertion in the pages of your valuable journal.

Perhaps we are going too far in apparently presuming that similar treatment has not been adopted by some, but we don't remember at the present moment having read, nor in conversation with any practitioner (with the exception of one gentlemen, who made the suggestion to us after having tried it experimentally) heard of the agent (acetic acid) applied in this disease.

Our patient was a six-year-old, dark bay gelding, about 15.3 hands high, of the cab-horse class of animal, and owned by a large firm of 'bus and cab proprietors in London, Eng.

On entering the box along with the owner, we were informed the case had been under treatment for five months, and he thought recovery exceedingly doubtful; in fact the case had been pronounced incurable, but "doctors differ," and he hoped a change of treatment might have a beneficial tendency. We need not occupy time and space in giving the symptoms, which are familiar to every practitioner; suffice it to say, that we were almost able to diagnose the case before seeing it, by our sense of smell, the fetor was so offensive. The affected limb was the off hind; it was enlarged from the top of the coronet to the lower aspect of the hock, with the characteristic cracks, discharge, etc., the enlargements known as "grapes," due to the plugging up of the ducts of some of the subaceous glands, and the retention of their secretion.

Our plan of treatment was as follows: *Constitutionally*—A sharp purgative, followed by mineral tonics. *Locally*—A poultice composed of equal parts of wheat bran and linseed meal, made the proper consistency, with hot water. In the poultice was placed and thoroughly mixed, acetic acid (B. P. strength) f. ℥iv.

A loose coat or stocking, made of stout sacking, was put on the limb, and the poultice packed inside of the leg of the stocking. This was allowed to remain on for twenty-four hours, and when removed, and the parts thoroughly cleansed

of the contents of the poultice, etc., the change in the appearance of things was really marvelous. The cuticle was beautifully clean and healthy in appearance. After drying well with a soft cloth, we applied an astringent lotion composed of

Zinc Chlor., ʒ ij,
Aqua, ℥ xxiv.
Mix.

We had occasion to apply the poultice a second time only. So far as we can recollect, the only after treatment consisted in keeping the parts clean and applying the lotion for a few days.

In fourteen days from the date of our first commencing treatment, the horse was in harness doing exercise, apparently perfectly cured, with the exception of a slight thickening of the limb at the lower third, due, no doubt, to hypertrophy of the subcutaneous tissue. We saw the animal afterwards, daily at work in an omnibus, and no recurrence of the disease ever took place.

We are inclined to think that acetic acid is worthy of more extended use in chronic skin affections, on account of its detergent properties, in stimulating the glands of the skin to healthy action.

A HERMAPHRODITE.

By L. E. Willyoung, D.V.S.

July 6th last I was called to examine a Percheron animal of the equine order, about two years old. It weighed about eight hundred pounds, in good condition, and presented the following anatomical features:

Rectum in proper situ, vulva well defined but without commissure, except at inferior extremity of same there protruded a well-developed glans-penis, with urethral opening in its center, from which there was an emission of urine at regular intervals. A large mammæ, gland with two mammæ situated in usual position, characteristic of a mare. On the left side, by manipulation and rectal examination, I discovered

an inguinal opening, but could discover none on right side, nor could I discover a testicle on either side. The animal seemed to possess the propensities of the male kind, and when near a mare there would appear an immense swelling of inferior portion of vulva and glans-penis just beneath the coccyx.

I cast the animal for abdominal exploration. Made an incision on right side a trifle anterior and lateral to mammæ, separated the sub-tissues, abdominal muscles and peritoneum with my fingers, and exploring the abdomen and pelvis I could discover but one testicle, *that* on the left side, which I pushed into *its* inguinal canal, as the length of its cord would not allow its removal on right side. I then made an incision on the left side, and removed the testicle as usual, which was perfect and large.

During the abdominal and pelvic exploration, I found a rudimentary uterus in proper position, and an ovary on right side, which I allowed to remain. The penis was very short, and no pelvic flexure existed, as sometimes does in such cases.

I may say that hernias are not necessarily resultant to such operations, and can in a measure be avoided by withdrawing the hand slowly from the abdomen and keeping the other arm in the rectum, pressing steady and firm against the artificial opening while the arm is being withdrawn; the rectum in this manner prevents the small intestine from escaping or protruding, and when the animal has arisen the opening is closed by the weight of the bowels on the abdominal muscles. My patient received little or no after treatment, and has about recovered.

The noteworthy features of this case are, viz.: the animal presented both male and female organs except one ovary and one testicle, which would otherwise make it a typical hermaphrodite.

EXTRACTS FROM FOREIGN PERIODICALS.

Translated by R. MIDDLETON, D.V.S., Philadelphia, Pa.

GERMAN JOURNALS.

OPERATIVE TREATMENT OF "WIND PUFFS."

After the hair has been removed by shaving, the locality is carefully disinfected by first washing with soap, and then applying a corrosive sublimate solution. A small trocar and canula is introduced into the substance of the swelling constituting the "wind galls," and the contents of these expressed. Having been successful in evacuating the tumors, the canula is left in position, and a two per cent. filtered carbolic solution is injected into and forced out of the cavity several times until the fluid discharged appears transparent. A stronger carbolic or an iodine solution is not necessary, and is even hurtful from the excessive irritation induced.

After the preliminary steps of expression and injection are accomplished, a bit of iodoform cotton is placed upon the wound made, and gently bandaged. Upon this bandage is arranged an irrigating apparatus composed of flexible, perforated metal tubing (made by Hauptner, Berlin, and costing $2.50) in such a manner that the whole region is kept moistened by antiseptic water for twenty-four hours; after which the same is removed and the locality coated with a blistering salve.

This method has one distinctive feature of great practical importance, to wit, that by the smallest possible expenditure of water the surface is kept cool—the bandage not being too thickly applied. Those cases operated upon by myself include two of the hock, one at the carpus, and several at the fetlock. Never have we noticed remarkable swelling after removing the tubing, and have continually recorded recovery within a period of five or six weeks. In one case, a nine-year-old coaching horse, the lameness and inflammation at the fetlock was so great that the owner insisted upon killing the animal.

The modus operandi is entirely unassociated with danger when carefully carried out as previously described. An old colleague, who had performed the puncture a number of years, but who had not continued the irrigation twenty-four hours, reports to me that in some cases after four weeks he had to again puncture.

We lay the greatest stress upon the injection and subsequent expression of the two per cent. carbolic solution; when the contents are of such a consistency that they flow only with difficulty, it is possible that a second operation may be advisable.—*Berl. Thier. Woch.*

SUPERFŒTATION IN THE MARE.

It is known that mares, as a rule, cease to be in heat at the termination of six to eight days following successful copulation, but that exceptionally they may at the end of several months become again "œstral," notwithstanding that they already be pregnant. This may also be asserted of cows with equal certainty. Various opinions are current as to whether, after the second copulation, as just stated, a real fructification of the ovum can be possible. Such a condition of affairs, conceding that it may occur, is designated superfœtation, as opposed to that state induced by several copulations at one time, and which is known as superfœcundation.

Pardou relates the case of a fourteen-year-old mare being covered in March by a jack, on the eighth of April again, and on the eighth of May by a stallion. Precisely eleven months after the second connection, and ten after the third, this mare became parturient in a double degree, bearing respectively a jack and a filly. The former died in three days, and the latter never utilized the organs of respiration.—*Rcpert. d. Thierh.*

INOCULATION FOR ANTHRAX.

During the year 1890 the laboratory of Pasteur Chamberlain supplied virus for 2,289 horses, 21,289 cattle, and 190,229 sheep. Of the 939 horses reported upon, two died between the first and second inoculation, and one before the close of

the year, from anthrax. Total loss, 0.31 per cent. Among 9,356 cattle upon which report was rendered, 0.13 per cent. succumbed from the first inoculation, 0.05 per cent. from the second, and later in the course of the year, 0.19 per cent.; so that the total fatality amounted to 0.37 per cent. Age and race of the subjects appeared in no wise to influence the course of the inoculation. The 78,770 sheep whose sickness was registered yielded a total fatality of two per cent., of which 0.69 per cent. expired after the first application, 0.14 per cent. after the second, and before the end of the year, 1.17 per cent. more.

As a very important factor in giving a judgment upon the comparative worth of inoculation, it is of primary necessity to note that in several of these herds infection had already secured a foothold before they were subjected to the inoculations.—*Thier. Woch.*

GERMAN VETERINARY UNIVERSITIES.

The veterinary university in Berlin, during the winter semester (term) just closed, was frequented by 488 students, which also includes 133 military assistants, 20 post-graduates, and 27 miscellaneous, studying particular subjects, and not taking a regular course. The Hanover university had 205 regular students and 15 not taking the whole curriculum. The Dresden college was visited by 103 students and 10 others. At the school in Giessen, 28 veterinary students availed themselves of the medical course. Accurate returns of the Stuttgart and Munich universities have not been received. Altogether, exclusive of visitors taking only partial courses, the above colleges were attended by 777 students; to this number may be added about 200 from the unreported colleges, making a total German scholarship of 1,000 men.

THE newest means to deodorize iodoform is to use two drops of the etherial oil of coriander to every fifteen grains of iodoform.

MALET reports fœnum græcum as a green herb to be a stomachic tonic and nourishing. He further adds that the

flesh of animals having fed but once upon this green will emit a characteristic odor and taste. When this food, however, is withheld fourteen days previous to slaughtering, this disagreeable feature vanishes.—*Deutsch. Med. W.*

FROM ENGLISH JOURNALS.

TWO CASES OF MALIGNANT TUMORS IN THE HORSE.

By Thomas Walley, M.R.C.V.S., Royal Veterinary College, Edinburgh.

The following two cases, each of which present some points of interest, came under my notice in consultation. For the main points in the history of the cases I am indebted to the gentlemen in whose practices they occurred.

CASE I.—ADENOMA.

Subject—Brown cart gelding, 6 years old.

History.—The horse was first seen on the 24th of March by Mr. Barclay, of Dunfermline, who was informed that the animal had been purchased about five weeks previously as sound, but that, as he did not appear to thrive and had become "pot-bellied," the owner thought the horse was the subject of worms. As Mr. Barclay did not observe anything of a definite character, he treated the case with vermicides and cathartics.

On April 1st Mr. Barclay was informed that the horse was off his feed and very dull, and that the abdomen seemed to be increasing in size. On visiting his patient he found that such was the case; the pulse also had become rapid (80) and weak, the mucous membranes highly injected, the respiration thoracic: further, on manipulating the abdomen he detected a distinct fluctuation wave, and also a large hard tumor in the right inguinal region. He informed the owner that the animal was the subject of ascites, and that in his opinion it was the result of organic disease of one or more of the internal organs or of the mesenteric glands, and suggested that I should be asked to visit the case. The suggestion was acted on, and a quantity of fluid was removed from the abdo-

men. By rectal exploration the presence of several large hard masses was discovered in the peritoneal cavity. Judging from the conditions presented, I expressed the opinion that the horse was suffering from tuberculosis, and that he would probably die in the course of a few days. The horse died on the 3d of April.

AUTOPSY.—This revealed the presence of several gallons of ascitic fluid in the peritoneal cavity, with 9 or 10 enormous tumors, the largest of which weighed about 60 lbs. All the mesenteric, and other intra-abdominal lymphatic glands, were much enlarged. The liver was cirrhotic; the intestines, spleen, lungs and kidneys healthy. Microscopic examination showed that the new growths had an adenomatous structure.

CASE II.—SARCOMA.

SUBJECT.—An aged Clydesdale gelding.

HISTORY.—In February, 1891, a slight swelling was observed over the region of the left hip joint, but as there was no lameness, professional assistance was not sought.

The case first came under the observation of Messrs. Reid, of Auchtermuchty, on the 17th September, when the horse presented the following symptoms: The near hind leg was almost powerless, the position assumed being similar to that of stifle lameness. There was some tumefaction over the region of the hip joint, but no tenderness on pressure. On the supposition that fracture of the upper part of the femur or of the pelvis existed, a careful examination, both externally and per rectum, was made with the object of localizing the fracture, but no evidence of the existence of such an injury could be obtained. It was observed that the animal could extend the leg and even rub it against its fellow. A high degree of fever existed; the appetite was partially in abeyance, and thirst great.

The horse was placed in slings, and hot fomentations with stimulating liniment were applied to the swollen parts.

Daily visits were paid until the 2d of October, and during the period intervening between the 17th September and this date the swelling had increased enormously, ultimately

involving the whole of the limb down to the hock, and upwards to the haunch and anus. Defæcation was performed with difficulty, paraphymosis existed, emaciation progressed apace, and the appetite became completely suspended. In addition, the countenance became Hippocratic, and symptoms of broncho-pneumonia made their appearance.

On the 2d of October I accompanied Mr. Reid, Sr., on a visit to the case; and as I agreed with the diagnosis which had been previously arrived at, viz., that the swelling of the limb was due to the existence of some malignant disease (probably sarcoma), the horse was destroyed. At this time the horse walked with the greatest difficulty, the toe of the foot being dragged for some little distance with the fetlock flexed, the leg ultimately being extended with a spasmodic jerk.

AUTOPSY.—Revealed an enormous sarcomatous mass extending from the middle of the thigh to the pelvis; and on laying open the pelvis it was found that the sacro-lumbar group of lymphatic glands had become involved in the diseased process, the whole forming a large tumor.

Disseminated new growths existed in the various abdominal organs, and in the lungs and mediastinal lymphatic glands.—*Journal of Com. Pathol. and Ther.*

CEREBRAL APOPLEXY IN COW.

BY THE SAME.

SUBJECT.—Milch cow recently calved and purchased a fortnight before symptoms of illness appeared.

January 31, 1892, I was requested by the owner of the animal to visit the cow, "as she had suddenly become very strange."

Symptoms presented were, the head elevated, neck rigid and drawn a little upwards and backwards, persistent double nictitation, smacking of the mouth, insensibility of pupils of eyes to artificial light, rigidity of fore legs. Animal quite conscious and showed no signs of nervous perturbation on an examination being made of the mouth, nor, subsequently, on

administering medicine; rumination, appetite, and lactation suspended. Slight fever; general condition unthrifty.

Diagnosis doubtful, but from the general appearance and condition of the animal I suspected tuberculous with secondary tubercular meningitis.

TREATMENT.—Application of croton liniment to skin behind ears, and internal administration of chloral hydrate with potassic bromide and iodide.

COURSE OF CASE.—No relief was afforded by treatment adopted; the animal daily became worse, and on the second day complete paralysis set in, when the owner severed the carotid artery.

AUTOPSY.—Symmetrical cerebral apoplexy, a diffuse clot of blood being found under the meninges at the extreme supero-posterior part of each hemisphere of the cerebrum, with a small clot at the inferior border of the falx cerebelli. The vessels of the velum interpositum and of the pia mater covering the nates and testes were intensely hyperæmic.—*Ibid.*

RUPTURE OF THE STOMACH AND VOMITION IN THE HORSE.

BY WILLIAM ROBB, M.R.C.V.S., Glasgow.

It has been a point of discussion for some time what the true value of vomition is, as a diagnostic symptom; some regarding it as a sure sign of ruptured stomach and, consequently, approaching death.

The above affections being far from uncommon in this city, I have paid considerable attention to vomition, and do not fear it as I once did. The following are a few of the cases I have had recently:

No. 1.—Animal seized with colicky pains at 8:30, and visited by me at 8:50. Found great distension of abdomen, pulse almost inperceptible, sweating and attempted vomition. Administered flatulent and sedative draught; at 9:30 animal died.

POST-MORTEM—Rupture of the stomach.

No. 2--Been bad for some hours before visited, and had

been receiving sedative medicine. Animal free from pain, but otherwise as in No. 1. The contraction of inferior cervical muscles was very strong during the attempts at vomition. Dying.

POST-MORTEM—Rupture of the stomach.

No. 3.—Horse attacked at work with colic; brought home and received sedative draught. When I saw him he resembled No. 2 in his violent attempts at vomition. Pulse full and slow, temperature below normal, distension of abdomen on left side; died in an hour and a half after coming home.

POST-MORTEM—Rupture of stomach.

No. 4.—This case does not follow the lines of the previous ones, being the details of a post mortem of a one-year-old Clydesdale colt, found dead in the field.

On opening the abdomen, the food was found lying freely about and the stomach ruptured. The stomach occupied the greater part of this cavity, the intestines being nearly empty and pressed out of their respective positions. On the stomach being dragged along the floor and placed on the weighing machine, it was found to weigh with its contents six stones six pounds. This looks hardly possible when we consider the smallness of the stomach in the horse, but the change must have been going on for some time, probably owing to constriction of the pyloric ring, and the animal being at grass his illness had been overlooked. Or it may have been a congenital malformation aggravated.

There being a great similarity in cases suffering from rupture of the stomach, I will not detail any others. In Nos. 1, 2 and 3, it will be noticed that *ineffectual attempts* at vomition were frequent, and that these animals died. On the other hand I have had cases in which actual vomition or eructation was a symptom treated to a successful termination. To have vomition in the horse it is said we must have some lesion in the digestive tract which relaxes the mucous folds at the cardiac orifice. It is this constriction at the cardiac orifice that makes gastric impaction with tympanites more fatal in horses than in those animals that vomit freely. But let it get relaxed sufficient to allow of even eructation, and great relief is given in many cases.

It is not improbable that in those cases which vomit and recover, we have some muscular fibres giving way, thus causing the above change at the cardiac orifice. As a result of vomition and eructation the distended stomach gets a relief to some extent; at all events in many cases it prevents excessive accumulation of gas, until the medicine has time to act. This, of course, is only a theory, but one that is generally accepted. The same effect might be brought about in a greatly distended stomach through traction of the mucous coat on the rugæ at the orifice without rupture of muscular fibres; but in those cases of slight indigestion with tympany in which relief is given by eructation, the animal recovering in a few hours, the latter theory to my mind is the more acceptable. In those cases where we see strong attempts at vomition, it seems as if the stomach were not acting; it being only the muscles of the body trying to perform the act, the stomach being ruptured and unable to give assistance. As a proof of this, let me compare it with an organ we can see and feel—I mean the uterus. Many of us know its power of expulsion; but if by accident in pressing against it we bring about a rupture, the great power of ejection is gone, and so I believe it is with the stomach.

After comparing my results in cases of *successful* vomition and eructation, against *attempted*, I am inclined to believe the latter the more serious symptom of the two, and to my mind diagnostic of complete rupture.

The treatment I have found most successful is—an aloetic ball immediately on being called in, followed up by the administration of sodæ hyposulph, carbo. lig. and sedatives, alternated with carbolic acid, ol. menth. pip., and tr. assafœtidæ. The external treatment consists in the application of mustard to the abdomen, followed by hot fomentation. Puncturing the colon, I find gives no relief.—*Ibid.*

TUBERCULOSIS IN GOAT.

By W. Alston Edgar, F.R.C.V.S., Dartford.

The subject of this case was purchased from a drove of goats about two years ago, being then three years old. She

had a kid in April, 1891 (which was sold when weaned), and continued in milk up to the end of October. She had the run of the farmyard and mixed freely with the cattle, which were all healthy except for an attack of "husk," in the autumn of 1891.

The illness commenced about the middle of November, and at the end of a fortnight the animal, being utterly prostrated and refusing all food, was destroyed by order of the owner, J. F. Egerton, Esq., Estate Office, Tatton Park, Knutsford, who forwarded the lungs to me for examination, he being of the opinion that it was tuberculosis.

Unfortunately the abdominal viscera were not forwarded, but Mr. Egerton remarked that "the liver contained white patches, which he thought were abscesses."

The goat was in a fat condition up to the time of illness, *but frequently went lame.*

The lungs were uniformly studded with grayish-yellow nodules, no portion of either lung or lobes being healthy. There were no deposits on the pleura. The bronchial lymphatic glands were enormously enlarged and hardened. The mucous membrane of the bronchioles was in some parts thickened; the lumen was blocked with mucus and contained a few *strongyles.*

I forwarded a portion of lung and lymphatic gland to Professor M'Fadyean, who reported immediately that the lymphatic glands contained tubercle bacilli, and a few days later, having examined the portion of lung, said—"It shows no lesions save those of tuberculosis. The little nodules are typical tubercles, showing giant cells, caseation, and tubercle bacilli."

There is no evidence to show how this goat became infected.—*Ibid*

REVIEW.

ECHINOCOCCUS AND STRONGYLUS. By Dr. Stiles. *Mejer*, Statistische Beiträge zu dem Norkommen thierischer Parasiten bei Schlachtthieren. (Zeitschrift für Fleisch und Milchhygiene, 1892. II. p. 125-129).

Dr. Mejer examined a large number of animals, at the

Leipzig slaughter-house, *Echinococcus hydatida* and *Strongylus paradoxus*, the lung nematode or swine.

Of 5,156 swine raised in the country and slaughtered at Leipzig between May 1st, 1890, and April 30, 1891, 196 (or 3.79 per cent.) were infected with echinococcus, generally (183 cases) in the liver. From September, 1890, to February, 1891, 843 Hungarian swine were slaughtered and examined, 181 (21.47 per cent.) of which were found infected. From May 1, 1890 to April 30, 1891, of 4,515 sheep examined, 591 (13.09 per cent.) contained hydatids. In the sheep, the parasites were found more frequently in the lungs than in the liver (436 to 17,138 cases both lungs and liver), while in swine the parasite was more frequent in the liver.

Heretofore *E. multilocularis* (*racemosus*) has been considered a rarity, but Dr. Mejer states that he found it frequently in swine, once in sheep, and that 7 per cent. of all the echinococcus hydatids found in cattle were of this type.

Strongylus paradoxus was found in the lungs of 19.03 per cent. (521 out of 2,212) German swine, and 52.02 per cent. (426 in 819) of the Hungarian swine. Dr. Mejer does not believe that this parasite harms its host except when present in immense numbers in young pigs.

Mangold. **Ueber den multilokulären Echinokokkus und seine Tänia. (Berl. Klin. Wochenschrift 1892. ⅔ Ref. in Zeitschr. Fl. und Milchyg. 1892, p. 132).**

Author believes he has experimentally proven that *Echinococcus multilocularis* is specifically different from *E. unilocularis* (*polymorphus, hydatidosus*). As specific difference of the tapeworm, he gives the size of the hooks as larger in E. *multilocularis* than in the common form, *i. e.*, hook 19-18; 16, base 10: 7.

These differences in the size of the hooks might possibly be *varietal* if found constant, but I have very grave doubts as to whether the author is justified in calling them specific.

Rosenberg. **(B). Ein Befund von Psorospermium (Sarcosporidien) im Herzmuskel des Menschen. (Zeitschrift für Hygiene und Infections krankheiten, 1892, p. 435-440 Taf. xvii., 2 figures.**

In 1862, Lindemann stated that he had found three cases

of sarcosporidia in man, but authors since that time have not been willing to accept Lindemann's interpretation of the objects diagnosed by him as belonging to this group parasites.

Rosenberg now gives a case of a cyst in the cardiac muscles containing a milky substance; judging from the figures, rather than the description, this seems to be a true case of sarcosporidia. R. gives the name *Sarcocystis hominis* to the structure. It is interesting to note this "find," but we are sceptical in regard to accepting the species upon the description given.

NATURAL ORDERS OF PLANTS ARRANGED IN TABULAR FORM, and Specially Adapted for Veterinary Students. By C. F. De Jong, M.R. C.V.S., and Lecturer on Botany in the Medical Veterinary College, Edinburgh. (Sabiston & Murray, N. Y.).

A neatly printed pamphlet of twenty pages, furnishing to the beginner in botany, and principally to veterinary students, a concise and systematic arrangement of the divisions of the vegetable kingdom.

SOCIETY MEETINGS.

SPECIAL NOTICE—UNITED STATES VETERINARY MEDICAL ASSOCIATION.

To all Members of the United States Veterinary Medical Association, and all Members of the Profession:

The Committee of Arrangements have secured a concession of the usual one and one-third rates from the Eastern Passenger Railway Association, which will, no doubt, be acquiesced in by the Trunk Line and the other Railway Association. This will be, as usual, a full fare going, with a certificate from the agent, and the one-third fare returning.

I also desire to give notice that all applications for membership must be filed in the Secretary's office on or before September 1st, in order that they may be sure of receiving consideration at the Boston meeting. The afternoon and evening of the second day will be spent by the Association on a trip, by the courtesy of the Massachusetts State Veterinary Medical Association.

Two other papers in addition to those announced in the last number of this journal will be offered for the consideration of the Association.

All State associations, through their proper officers, will give notice as soon as appointments of delegates are made by their respective associations.

The following amendment, offered at Washington, will come up for action at this meeting:

"ARTICLE 1. Any applicant for membership shall submit his name upon one of the Association's application blanks, duly vouched for by one or more members of the Association, or by the resident State Secretary of his respective State. He shall be a graduate of a regularly organized veterinary school which shall have a curriculum of at least three years, of six months each, specially devoted to the study of veterinary science, and whose corps of instructors shall contain at least four veterinarians. If of a medical school, a similar curriculum as to time shall prevail."

This alteration to go into effect after the annual meeting of 1892. It shall not be retroactive, nor apply to applicants who were college matriculants prior to its passage.

W. HORACE HOSKINS, *Sec'y.*

R. S. HUIDEKOPER, *Pres.*

OHIO STATE VETERINARY MEDICAL ASSOCIATION.

The semi-annual meeting of the Ohio State Veterinary Medical Association convened at the Hawley House, Cleveland, Ohio, June 28, 1892. Meeting called to order by Vice-Pres. Dr. Derr, at 2 P. M.

The attendance was smaller than for many a previous meeting, there being about twenty present; this was a disappointment to many, as the railroad fare was only half fare, and we had expected an overflowing meeting.

New members proposed were Prof. A. H. King, of Cincinnati, and Dr. F. E. Barnett, of Painesville; both are graduates of the Ontario Veterinary College.

Drs. Geo. Butler, W. C. Fair and A. H. Logan, requested

letters of withdrawal and the same were granted, although the Association regretted to lose any member. They have a perfect right to withdraw ; in fact we have of late lost several members from withdrawal, because they desired to engage in the manufacture and sale of veterinary medicines.

Dr. Butler regretted to leave the Association, but could not conscientiously remain a member, according to the code of ethics, and do as he intended to do.

Dr. Howe read a communication from the Secretary of the United States Veterinary Medical Association, in reference to the meeting to be held in Boston, and personally urged all members to attend.

The first subject brought up for discussion was barren mares and the treatment. Dr. Derr stated he had just paid $10 for an impregnator, consisting of a rubber bulb, etc., which he thought worth about 25 cents, and of no service whatever.

Dr. Hillock thought the article was a great deal like the veterinary medicines on the market ; there was a popular demand for them. and the demand was drawing veterinarians into this popular tide, for the purpose of making money.

Drs. Butler and Howe thought barrenness due, far more often to a flaccid non-contractile cervix, than to a contracted one.

Dr. Shepherd stated examining a mare which failed to become pregnant, and found the cervix dilated almost the full width of vagina ; used astringent injections for a week, placed the mare to the stallion, and she become with foal.

It was the unanimous opinion of all present, that impregnators as advertised were useless.

Adjourned until 7:30 P. M.

Evening Session.

Dr. Derr in the chair. Meeting called to order at 7:45 P. M.

Letters were read from Drs. Liautard, Hoskins, Hinckley and others.

Dr. Fair stated that at the present time there was probably

one of the finest collections of fast horses at the Cleveland race track that was ever there, and suggested the members visiting there in the morning. It was decided in following his suggestion, instead of having a meeting to-morrow.

Dr. Tanner suggested a little exchange of ideas on our knowledge, or rather our ignorance, of the pathology and treatment of parturient apoplexy. Some members present had most of them recover under any treatment, while others had them nearly all die, and Dr. Gribble stated having fifteen cases during the present month (June), and had had fifteen funerals, whereas, in 1891, seven out of ten recovered during same month. He had spent plenty of money experimenting with new alkaloids, had used stimulants, sedatives, the cold pack, and almost everything he had ever read of, and actually he believed one was as good as the other, at least the results looked that way.

"What success have you had with tarsal tenotomy for the relief of springhalt?" was the next question; but few of the members present had tried it, and then with not very gratifying results. Prof. King had performed it a few times in Cincinnati, two or three times with good results, while others were complete failures; and one seemed cured at the time of operation, but it gradually got to be almost as bad as before.

The remainder of the evening until midnight was spent in a sort of social session, when the meeting adjourned.

WM. H. GRIBBLE, *Secretary.*

OBITUARY.

HONORARY PROFESSOR F. SAINT-CYR.—The death of Professor Saint-Cyr took place on the 12th of June, and involves the loss of another among the celebrated workers in veterinary science. He graduated among the foremost of his class, in 1846, at the veterinary school of Lyons, and soon became engaged in the congenial work, to him, of teaching, until in 1850, when he was appointed by his *alma mater* to the position of clinical teacher. Working his way by degrees, according to the slow methods of advancement characteristic of European institutions, he was in 1866 appointed to the pro-

fessorship of pathology, internal clinic and pathological anatomy, the duties of which posts he continued to fulfil until 1885, when, relinquishing his labors on account of failing health, he received from the Secretary of Agriculture his title of "honorary" professor.

Professor Saint-Cyr has written much during his professional career, and the *Journal of Medecine Veterinaire*, published at Lyons, contains numerous articles of interest from his pen. Two of his most important works, viz., his "*Treatise on Veterinary Obstetrics*" and a "*Manual of Exploration of the Chest of Domestic Animals*," have been adopted among the classics in veterinary literature.

We regret to announce the death of Dr. Emilio Charum, which took place on July 4th. Dr. Charum graduated at the Columbia Veterinary College in 1883.

CORRESPONDENCE.

AN INQUIRY.

HILLSBORO, OHIO, July, 1892.

Dear Sir.—I have read somewhere, I think outside of our journals, that electricity has been recently applied to diagnose the state of a horse's foot when prick has been suspected.

Usage is to put one pole of a battery in contact immediately above the hoof, the other pole in contact with the shoe. If the hoof has been pierced to the sensitive part, the horse will feel the electric current and become irritated; in the other case, the current cannot pass through the foot.

This may be an old idea to many, but it is something new to me. Yours very respectfully, S. R. HOWARD, V.S.

[Some of our readers may give Dr. Howard information. It seems to us that the subject was presented in the *Chicago Medical News*.—ED.]

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A good country practice, including office fixtures, such as desks, bottles, chairs, etc.; good driving horse, five years old, road wagon and harness. Located in a fine city of about four thousand inhabitants. No competition. Fine breeding country. Price $300 cash. Address Sabiston & Murray, 916 Sixth Avenue, New York.